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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,680	07/14/2003	Daniel Laurent	033818-004	4129
7590	03/30/2005			EXAMINER
BURNS, DOANE, SWECKER & MATHIS, L.L.P. P.O. Box 1404 Alexandria, VA 22313-1404			VANAMAN, FRANK BENNETT	
			ART UNIT	PAPER NUMBER
			3618	

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<i>✓</i> <b>Office Action Summary</b>	Application No.	Applicant(s)
	10/617,680	LAURENT ET AL.
	Examiner Frank Vanaman	Art Unit 3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-16 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 14 July 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

<ol style="list-style-type: none"> <li>1)<input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2)<input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3)<input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>7/14/03</u>.</li> </ol>	<ol style="list-style-type: none"> <li>4)<input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.</li> <li>5)<input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6)<input type="checkbox"/> Other: _____.</li> </ol>
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### Drawings

1. The drawings are objected to because figure 6 includes legending not in the English language. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### Specification

2. The specification filed lacks the section identifiers now preferred in the framing of a U. S. Patent Application as follows:

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or

REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a).  
"Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(e) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(f) BRIEF SUMMARY OF THE INVENTION.

(g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(h) DETAILED DESCRIPTION OF THE INVENTION.

(i) CLAIM OR CLAIMS (commencing on a separate sheet).

(j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

3. The abstract of the disclosure is objected to because it includes legal phraseology such as 'said', which should be avoided in the text of an abstract of the disclosure. Correction is required. See MPEP § 608.01(b).

4. The disclosure is objected to because of the following informalities: on page 8, line 3, it is not clear what is being referred to by "the skill man and unfamiliar with the object of this invention"; on page 8, line 5 "some informations" is informal (also note line 9).

Appropriate correction is required.

### **Claim Objections**

5. Claims 1 and 11 are objected to because of the following informalities: throughout claim 1 (see lines 3, 4, 7, 9), "the said" should either be - -the- - or - -said- -. Appropriate correction is required; in claim 11, line 1, "either of claims 9" should be - - claim 9- -.

### **Claim Rejections - 35 USC § 112**

6. Claims 3, 4, and 6-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 3 and 4, lines 2, "the dog clutch" lacks a clear antecedent basis; in claim 6, the recitation of two gear ratios appears to

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contradict the recitation of *at least* two gear wheels and associated transmission paths; in claim 7, line 2, it is not clear what attribute of "self adjusting" is or is not being ascribed to the motor in view of the use of the phrase "self-adjusting type"; throughout claims 9-16, the use of terms in quotations such as "maneuvered", "sensor" and "vehicle speed" are confusing in that the reason for the use of quotation marks is not clear, the implication being that the terms in quotations are being used to represent other terms or meanings; in claims 12, 13, 15 and 16, it is not clear what is meant a value deemed 'reliable' and the characteristics of such reliability are not clearly set forth.

Each and every claim should be carefully reviewed and revised for clarity under 35 USC 112, second paragraph.

### **Claim Rejections - 35 USC § 102**

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated, as best understood, by Cragg (US 3,930,551). Cragg teaches a motor powered vehicle having an electric motor (51) for driving a wheel (2) mounted for rotation about an axis (37), which also includes a toothed wheel (40) rotating about the same axis, and being directly connected to the hub of the wheel (2, 31, 33, 34 see figure 4), having an arrangement with at least two gear wheels (71, 75) mounted so as to be constantly meshed with the toothed wheel (40), further including an input shaft (57) driving an input gear (62) which is driven by the electric motor through a coupling arrangement; further including a gear ratio changing system (65, 76, 77, 78, 79) which allows engagement of the drive gear through one or the other of the wheels which contact the toothed wheel, in the form of a dog clutch to the breadth claimed (i.e., a clutch which forces mating engagement between mating teeth, as opposed to a frictional engagement), thereby allowing one of no more than two transmission ratios to be selected, as well as a neutral

position (figure 5), one ratio involving an intermediate toothed wheel (74) which rotates in the opposite direction from that of the input wheel (62).

### **Claim Rejections - 35 USC § 103**

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cragg. The reference to Cragg is discussed above and fails to teach the motor as being a synchronous, self-adjusting type, further having a rotor position sensor. The use of synchronous drives of the self-adjusting type is very old and very well known, and it would have been obvious to one of ordinary skill in the art at the time of the invention to use, as motor 51) a synchronous self-adjusting motor with a position sensor for the purpose of allowing precise control of motor speed based on a driving frequency, and to include a position sensor for the purpose of feeding back the speed/position of the motor so as to allow the control circuit to determine whether or not the motor behavior corresponds to the demanded output values.

### **Allowable Subject Matter**

11. Claims 8-16 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

### **Conclusion**

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Goodwin (US 1,481,706), Van Horn et al. (US 4,083,421), Okamoto et al. (US 4,094,556), Cote et al. (US 4,899,279), Morimoto (US 5,033,571), Igarashi et al. (US 5,038,633), Brunner et al. (US 5,322,141), Kim (US 5,780,979), and Glab et al. (US 6,511,397) teach vehicle drive and control schemes of pertinence.

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to F. Vanaman whose telephone number is 703-308-0424. Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is 703-308-1113.

A response to this action should be mailed to:

Mail Stop \_\_\_\_\_  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450,

Or faxed to one of the following fax servers:

Regular Communications/Amendments: 703-872-9326  
After Final Amendments: 703-872-9327  
Customer Service Communications: 703-872-9325

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

F. VANAMAN  
Primary Examiner  
Art Unit 3618



3/21/05